

REMARKS

The Office Action dated September 21, 2005 has been read and carefully considered and the present amendment submitted in order to more clearly define the claims describing the invention.

In particular, in the aforesaid Office Action, The drawing were initially objected to as not having the legend "Prior Art" indicated on those drawings that illustrated that which was old. Accordingly, replacement sheets are submitted herewith to replace the drawing sheets including Figures 1, 2a, 2b, 3, 4a, 4b, 5a, 5b, 6, 6a and 6b and which now have the proper legends on the drawings.

The abstract was objected to as not having the reference characters in parenthesis and a replacement abstract is submitted herewith with the reference characters enclosed in parenthesis.

Claims 7 and 10 were objected to for certain informalities and those informalities have been corrected.

Next, claim 10 was objected to under 37 CFR 1.75(c) as being of improper dependent form for failing to further limit the subject matter of the previous claim. As such, claim 7, the base claim for claim 10, has been amended. Therefore, in claim 10, there is the limitation of "wherein the throat is shaped such that its profiles, *through substantially all cross sections longitudinal to the throat*, substantially match the angle of the frustro-conical portion at the exit of the source driver unit ..."
(emphasis added). In contrast, claim 7 only requires that "*opposite profiles of the throat*, lying within a first plane that bisects the throat entrance and perpendicularly bisects the long side of the throat exit, substantially match the angle of the frustro-conical portion at the exit of the source driver unit" (emphasis added). Thus, claim 7 does not restrict the profiles of the throat that *do not* lie within the perpendicular plane specified within the claim. It is therefore submitted that the

subject matter of claim 7 now does limit the subject matter of claim 7 and that the objection should be withdrawn.

Claims 11-14 were rejected under 35 U.S.C. 112, second paragraph, as being omnibus claims and they have now been canceled.

As to the rejection as based upon the prior art, claims 1, 2 and 6 were rejected under 35 U.S.C. 102(b) as being anticipated by Hughes, II, U.S. Patent 6,059,069. Claims 3-5 and 7-10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes, II in view of Meyer *et al*, U.S. 5,925,856.

Taking, therefore, the claims in order, independent claim 1 is directed to a throat “wherein a pair of opposite profiles of the internal surfaces of the throat, lying within a first plane that bisects the throat entrance and perpendicularly bisects the long side of the throat exit, *initially diverge* in a direction from the throat entrance toward the throat exit” (emphasis added). Hughes II discloses a throat having profiles that are initially *parallel* to the longitudinal axis of the horn. That disclosure is clear from Figure 1 and 2 and, from the Hughes, II specification at column 4, lines 6 to 9 where it states “This can be attributed to the fact that at the throat entry, the walls 24 have no flare, *i.e.* they are normal to the plane of the throat entry 14”. In any case, independent claim 1 has now been amended to more clearly distinguish over the Hughes, II reference. Specifically, claim 1 has been amended such that the short sides have a length less than the diameter of the throat entrance. Hughes, II does not teach such an arrangement and thus it is therefore submitted that claim 1, as now amended, is not anticipated by the Hughes, II reference. As such, it is submitted that dependent claims 2-5 are also allowable.

With respect to claim 6, it is submitted that the Examiner has taken an erroneous position. As stated above, at the throat entry, the walls have no flare. Furthermore, the radii r_V and r_H shown in Figures 1 and 2, respectively, of the cited Hughes, II reference, are clearly different. If the radii are of different lengths, then

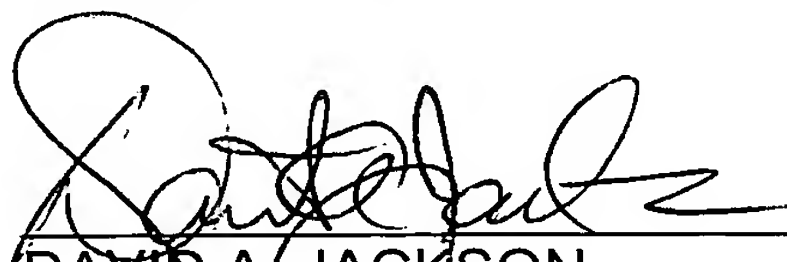
the initial divergence cannot be at the same angle as is required by claim 6. It is therefore submitted that claim 6 is also not anticipated by the Hughes, II reference.

Turing to the rejection based on "obviousness" under 35 U.S.C. 103(a), Applicant readily concedes that loudspeaker horns having a diffraction slit were known as of the filing of the present application. Further, Applicant acknowledges that Meyer *et al*, U.S Patent 5,925,856 discloses a diffraction slit having a short dimension that is smaller than the entrance to the feeder or preload chamber.

However, it is submitted that Applicant has made a significant and non-obvious advance over the prior art by recognizing that importance of the *transition* from the source driver unit to the horn. Specifically, Applicant has recognized that significant benefits can be achieved if the horn can be designed such that its profiles match that divergent profiles of a source driver. Further, Applicant has devised a horn that achieves this objective while still allowing the possibility of a convergent throat with a neck having a width less than a diameter of the entrance to the throat (refer to claim 3). Therefore, it is submitted that neither Hughes, II nor Meyer *et al* references suggest such an invention and that the claims are unobvious over the combination of Hughes and Meyer *et al*.

As such, it is submitted that the claims as now amended, are patentable over the references of record and an allowance of the present application is respectfully solicited.

Respectfully submitted,



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